

### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Justas Geringson on 5/20/10.

#### **The application has been amended as follows:**

1. (Currently Amended) A computer-readable storage medium containing instructions stored thereon, which when read and executed by a plurality of computers cause the plurality of computers to perform steps comprising:

receiving, at an administrative server, an MBean definition file in a markup language format;

generating, at the administrative server, an MBean archive file from the MBean definition file;

sending the archive file from the administrative server to a managed server in a management domain, wherein the management domain is a collection of distributed servers that are managed as a unit, and wherein the managed server contains a logical canonical server used as a proxy for accessing an MBean server located on the managed server;

using the archive file to instantiate a custom MBean upon the managed server, said custom MBean being customized for the managed server;

receiving a request for the MBean at a server residing in the management domain;

determining a scope of the MBean, said scope having been specified in the MBean definition file or on a specific instance upon creation of said MBean, wherein the scope of the MBean is set to be either server-specific for the managed server or shared in the management domain, wherein the scope of the MBean is the set of locations at which the MBean is available, such that the MBean is unavailable to servers located outside of said scope of said MBean, wherein the managed server contains copies of the MBeans scoped server-specific to the managed server, and wherein the administration server contains copies of MBeans shared in the management domain and further contains an MBean index of all server-specific MBeans and all shareable MBeans;

handling said request by said a server in the management domain; wherein if the MBean is of server-specific scope and unavailable to the server receiving the request, said server receiving the request invokes a method to access the MBean index and accesses the logical canonical server corresponding to the managed server that the server-specific MBean resides on based on said providing a custom management capability through the MBean; and

wherein applications requiring an enhanced isolation levels for MBean data are served using an MBean delegate, wherein the MBean delegate is identical to the

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MBean at creation, wherein after creation, the MBean delegate can be changed directly, wherein if the MBean is changed after creation of the MBean delegate, the MBean delegate is automatically updated with the changes unless the modified value caused by the changes has been specifically altered in the MBean delegate.

49. (Currently Amended) A method for providing custom management capabilities across a management domain of distributed servers, said method comprising:

receiving, at an administrative server, an MBean definition file in a markup language format;

generating, at the administrative server, an MBean archive file from the MBean definition file;

sending the archive file from the administrative server to a managed server in a management domain, wherein the management domain is a collection of distributed servers that are managed as a unit, and wherein the managed server contains a logical canonical server used as a proxy for accessing an MBean server located on the managed server;

using the archive file to instantiate a custom MBean upon the managed server, said custom MBean being customized for the managed server;

receiving a request for the MBean at a server residing in the management domain;

determining a scope of the MBean, said scope having been specified in the MBean definition file or on a specific instance upon creation of said MBean, wherein the

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scope of the MBean is set to be either server-specific for the managed server or shared in the management domain, wherein the scope of the MBean is the set of locations at which the MBean is available, such that the MBean is unavailable to servers located outside of said scope of said MBean, wherein the managed server contains copies of the MBeans scoped server-specific to the managed server, and wherein the administration server contains copies of MBeans shared in the management domain and further contains an MBean index of all server-specific MBeans and all shareable MBeans.;

handling said request by said a server in the management domain; wherein if the MBean is of server-specific scope and unavailable to the server receiving the request, said server receiving the request invokes a method to access the MBean index and accesses the logical canonical server corresponding to the managed server that the server-specific MBean resides on based on said MBean index;

wherein applications requiring an enhanced isolation levels for MBean data are served using an MBean delegate, wherein the MBean delegate is identical to the MBean at creation, wherein after creation, the MBean delegate can be changed directly, wherein if the MBean is changed after creation of the MBean delegate, the MBean delegate is automatically updated with the changes unless the modified value caused by the changes has been specifically altered in the MBean delegate; and

providing a custom management capability through the MBean.

51. (canceled)

52. In line 1 replace "Claim 51" with "Claim 1".

All other claims remain as presented.

**The following is an examiner's statement of reasons for allowance:**

The closest prior art (US 7,206,827 to Viswanath et al.; US 6,874,020 to DaPalma et al.) discloses or suggests:

generating, at the administrative server, an MBean archive file from a received MBean definition file (Viswanath col. 20, lines 9-10 "the management beans 212 generated ... may be MBeans");

sending the archive file from the administrative server to a managed server in a management domain (Viswanath col. 16, lines 12-28 "modify the element in persistent store 204. The changes may be serialized and sent to one or more other application servers 202");

using the archive file to instantiate a custom MBean upon the managed server (Viswanath col. 4, lines 33-39 "implementing instances of components generated on the administration server ... on one or more other servers (e.g. application servers)");

receiving a request for the MBean at a server residing in the management domain;

determining a scope of the MBean, wherein the managed server contains copies of the MBeans scoped server-specific to the managed server, and wherein the

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administration server contains copies of MBeans shared in the management domain (Viswanath col. 15, lines 39-41 "application server or system-specific components"; col. 15, lines 48-51 "Each server 202 may include server components") and further contains an MBean index of all server-specific MBeans and all shareable MBeans (DaPalma col. 4, lines 36-38 "an MBean server is a registry for objects which are exposed to management operations in an agent, for example a mini-agent");

wherein if the MBean is of server-specific scope and unavailable to the server receiving the request, said server receiving the request invokes a method to access the MBean index and accesses the logical canonical server corresponding to the managed server on which the server-specific MBean resides (DaPalma col. 4, lines 55-65 "receiving a management command for performing a management operation ... in a remote application host having a mini-agent; communicating the management command to the mini-agent").

The closest prior art does not disclose or suggest:

wherein applications requiring an enhanced isolation levels for MBean data are served using an MBean delegate, wherein the MBean delegate is identical to the MBean at creation, wherein after creation, the MBean delegate can be changed directly, wherein if the MBean is changed after creation of the MBean delegate, the MBean delegate is automatically updated with the changes unless the modified value caused by the changes has been specifically altered in the MBean delegate.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Mitchell whose telephone number is (571)272-3728. The examiner can normally be reached on Monday-Thursday and alternate Fridays 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bullock Lewis can be reached on (571) 272-3759. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jason Mitchell/  
Primary Examiner, Art Unit 2193